

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A video endoscope system, comprising:
an endoscope with a distal end and a proximal end;
an imaging chip located at the distal end of the endoscope, the imaging chip comprising:
an imaging array;
an analog-to-digital converter; and
an encoder circuit, wherein the analog-to-digital converter and encoder circuit are
integrated into the imaging chip to produce digital video data signals that are sent through an
optical fiber; and
an optical fiber, the optical fiber being used for transmitting signals from the imaging
chip, the optical fiber extending from the distal end of the endoscope toward the proximal end.
2. (Currently amended) The system of Claim 1, further comprising an operator
console, wherein the ~~[[video]]~~ imaging chip is coupled through the optical fiber to the operator
console.
3. (Currently amended) The system of Claim 1, ~~further comprising an encoder~~
~~circuit, wherein the encoder circuit encodes the signals from the imaging chip in the form of~~
~~video data that is impressed on the optical fiber~~ wherein the imaging chip is a single CMOS chip,
and each of the imaging array, analog-to-digital converter, and encoder circuit are fabricated
using CMOS processes.
4. (Original) The system of Claim 3, wherein the encoder circuit comprises a
pulse-code modulator.
5. (Original) The system of Claim 1, further comprising a light emitter, wherein the
light emitter is utilized for impressing video data on the optical fiber.
6. (Original) The system of Claim 5, wherein the light emitter is a photo diode.

7. (Original) The system of Claim 5, further comprising lensing that is coupled to the light emitter.

8. (Original) The system of Claim 1, further comprising a receiving circuit for receiving signals from the optical fiber.

9. (Original) The system of Claim 8, further comprising an optical connector at the proximal end of the endoscope, the optical connector being used to couple the optical fiber to the receiving circuits.

10. (Original) The system of Claim 8, wherein the receiving circuit comprises a decoder for decoding signals received from the optical fiber.

11. (Original) The system of Claim 10, wherein the decoder comprises a pulse-code demodulator.

12. (Currently amended) A video endoscope, comprising:
an imaging chip located at the distal end of the endoscope, the imaging chip comprising:
an imaging array;
an analog-to-digital converter; and
an encoding circuit, wherein the analog-to-digital converter and encoding circuit are integrated into the imaging chip to produce digital video data signals that transmitted through an optical fiber; and

an optical fiber, wherein video data is impressed on the optical fiber by the encoding circuit, the optical fiber extending from the distal end of the endoscope toward the proximal end.

13. (Original) The endoscope of Claim 12, wherein the encoding circuit comprises a pulse-code modulator.

14. (Original) The endoscope of Claim 12, wherein the encoding circuit comprises a light emitter.

15. (Original) The endoscope of Claim 14, wherein the light emitter is a photo diode that is used for creating the signals that are impressed on the optical fiber.

16. (Currently amended) An endoscope system, comprising:
an imaging chip located at the distal end of the endoscope[[:]], the imaging chip comprising:

an imaging array;

an analog-to-digital converter; and

an encoder circuit, wherein the analog-to-digital converter and encoder circuit are integrated into the imaging chip to produce digital video data signals that are sent through an optical fiber; and

an operator console; and

an optical fiber, wherein the imaging chip is coupled through the optical fiber to the operator console, the optical fiber extending from the distal end of the endoscope toward the proximal end.

17. (Currently amended) [[They]] The system of Claim 16, further comprising an encoder circuit, wherein the encoder circuit encodes video data from the imaging chip that is transmitted through the optical fiber wherein the imaging chip is a single CMOS chip, and each of the imaging array, analog-to-digital converter, and encoder circuit are fabricated using CMOS processes.

18. (Original) The system of Claim 17, wherein the encoder circuit comprises a pulse-code modulator.

19. (Original) The system of Claim 17, further comprising a light emitter, wherein the light emitter is coupled to the encoder circuit and is utilized for creating the signals that are transmitted through the optical fiber.

20. (Original) The system of Claim 19, wherein the light emitter is a photo diode.
21. (Original) The system of Claim 16, further comprising a receiving circuit in the operator console for receiving signals from the optical fiber.
22. (Original) The system of Claim 21, further comprising an optical connector at the proximal end of the endoscope, the optical connector being used to couple the optical fiber to the receiving circuit.
23. (Original) The system of Claim 21, wherein the receiving circuit comprises a decoder for decoding signals received from the optical fiber.
24. (Original) The system of Claim 23, wherein the decoder comprises a pulse-code demodulator.